(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)
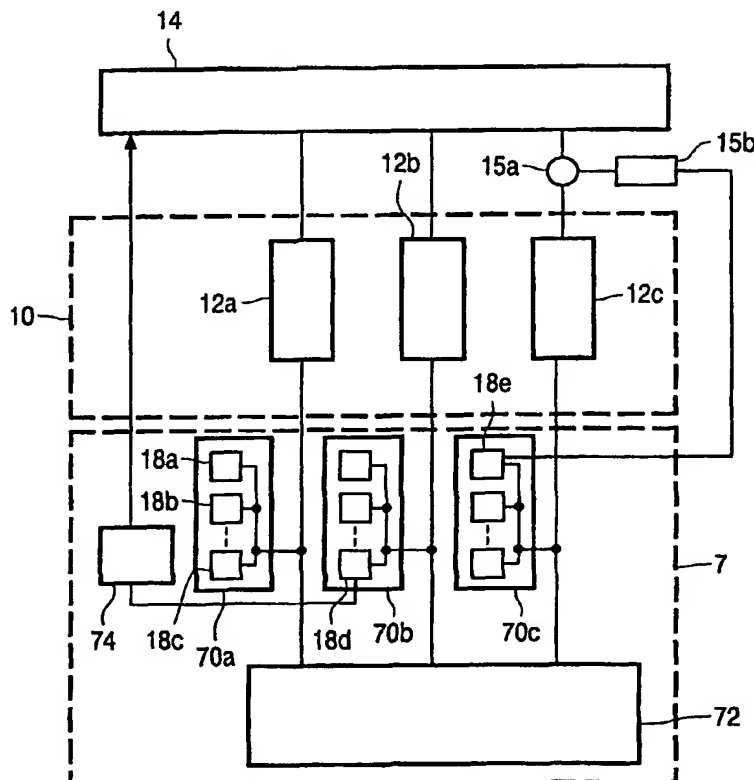
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(54) Title: DATA PROCESSING APPARATUS WITH PARALLEL OPERATING FUNCTIONAL UNITS

(57) Abstract: A program of instruction words is executed with a VLIW data processing apparatus. The apparatus comprises a plurality of functional units capable of executing a plurality of instructions from each instruction word in parallel. The instructions from each of at least some of the instruction words are fetched from respective memory units in parallel, addressed with an instruction address that is common for the functional units. Translation of the instruction address into a physical address can be modified for one or more particular ones of the memory units. Modification is controlled by modification update instructions in the program. Thus, it can be selected dependent on program execution which instructions from the memory units will be combined into the instruction word in response to the instruction address.

WO 2004/034252 A2